

CLAIMS

1.- A container and generally elongated item feed-dispensing machine, of the type incorporating a hopper (1) in which the objects are randomly introduced, and in which said objects finally adopt a vertical arrangement with the same position that is pre-established for all of them, characterized in that arranged at the outlet of said
5 hopper (1) is a metering device (5-10) leading to a discharge plate (22) ending at a lifting means (6) provided with a plurality of blades (11) of a grooved free edge, said discharge plate (22) having an also grooved edge (23) so as to intertwine with the blades (11), and said lifting means (6) ending at a transfer plate (31), also of a grooved
10 edge, for access to a transfer and selection station in which a base plate (29) framed by two side rails (30) collaborates, located on which is a conveyor (27), located above the base plate (29) and provided with grooved blades (28) similar to those of the lifting means (6), a plate (29) provided with a central opening (17) for the dropping of the objects, with a positional selection criterion of said objects, towards a vertical
15 positioning station, the beginning of which is located under the opening (17) of the base plate (29), wherein two tilted and static walls (34) are provided, arranged parallel to the feed direction of the object, linearly moving forward inside of which are vertical pushing means (35) attached to a conveyor (36) defining a horizontal path for said pushing means (35) which drag the objects, separated from one another, on a bottom conveyor
20 (41) on which they are placed.

2.- A container and generally elongated item feed-dispensing machine according to claim 1, characterized in that the metering device (5) is formed by two or more blades (8) radially arranged about a shaft (9) perpendicular to the feed direction of the lifting means, which shaft is provided with a duly controlled rotational movement.

25 3.- A container and generally elongated item feed-dispensing machine according to claim 1, characterized in that the metering device is formed by means of a shaft (9) attached to which are two radial blades (8) joined to one another by a cylindrical section (10) closing the outlet opening of the hopper (1), said metering device being able to be actuated, in a duly controlled reciprocating movement, so as to
30 put the space comprised between two blades (8) thereof in front of the opening of the hopper (1).

4.- A container and generally elongated item feed-dispensing machine according to claim 1 and any of claims 2 and 3, characterized in that located on the discharge plate (22) are two side walls (18), while at the same time arranged at the
35 beginning of the lifting means (6) are two other side walls (16) on which respective

articulated hatches (19) are supported which guide the objects towards the pre-selection lifting means (6).

5 5.- A container and generally elongated item feed-dispensing machine according to claim 1, characterized in that the lifting means (6) has a receiving area (13) where the objects are located in a lowered transverse position with respect to the feed direction in the spaces defined by the blades (11), of a rectilinear profile, arranged horizontally or with a slight upwards inclination so as to facilitate the entrance of the objects, a pre-selection area (14) where the conveyor acquires a curved configuration in the vertical direction so as to cause the poorly placed objects to fall, and an end area
10 in which its profile is straight again and rises up to the transfer station.

6.- A container and generally elongated item feed-dispensing machine according to claim 5, characterized in that the useful distance between the blades (11), which can be planar or of a triangular profile, is less than twice the width or thickness of the object to be selected.

15 7.- A container and generally elongated item feed-dispensing machine according to claims 5 and 6, characterized in that the blades (11) of the lifting means (6) are exchangeable so as to make it possible to handle different types of objects, for which purpose there is a grooved guide (25) fixed to the conveyor and arranged perpendicularly to the feed direction that fits in a counter-groove (26) existing on the
20 bottom edge of the blade.

8.- A container and generally elongated item feed-dispensing machine according to claim 1, characterized in that the rails (30) of the object transfer and selection station are arranged in a funnel shape with respect to the feed direction of the object, having a maximum spacing in its initial area and a minimum spacing in its end
25 area, the first spacing exceeding the total length of the object, and the later spacing corresponding to the length of the body of said object, i.e. in its geometric differentiation, such that when the object reaches the narrowest end of the funnel, its geometric differentiation is located above the corresponding rail, making the opposite end drop first.

30 9.- A container and generally elongated item feed-dispensing machine according to claim 1, characterized in that the rails (30) located on the base plate (29) are arranged in a funnel shape with respect to the feed direction of the object, such that the front end of the funnel has a width exceeding the total length of the object, and the outlet width matches the total length of said object, the base plate (29) having a rod (32)
35 aligned in the feed direction of the object and located on the axis of symmetry of the

rails (30), such that when the object is located above said opening (17) it is suspended by the rod (32), swinging due to the offset between its center of gravity and said rod (32).

10.- A container and generally elongated item feed-dispensing machine
5 according to claim 1, characterized in that the rails (30) located on the base plate (29) are arranged in a funnel shape with respect to the feed direction of the object, its initial spacing being greater than the total length of the object, whereas its spacing at its outlet matches said total length of the object, the transfer section incorporating one or several suitable sensors for identifying the differences which the object may have, and
10 said sensors acting on retractable guides (33) located under the rails (30), one on either side, above the opening (17) of the base plate (29), the guide (33) corresponding to the end of the object which must finally adopt a lower position being retracted.

11.- A container and generally elongated item feed-dispensing machine
according to claim 1, characterized in that located under the opening (17) of the base
15 plate (29) are two tilted and static walls (34) arranged parallel to the feed direction of the object, forming an open drop conduit leading to a conveyor (41), a plurality of vertical pushing means (35) acting on said open conduit, which pushing means are in turn attached to a conveyor (36) defining a horizontal path for said pushing means, which are spaced from one another by a magnitude that is equivalent to the maximum
20 width of the object.

12.- A container and generally elongated item feed-dispensing machine
according to claim 11, characterized in that each pushing means (35) is formed by a fixing arm (38) attached to the conveyor (36) and a vertical pushing part (39) joined to
25 said arm by means of one or more vertical locking profiles (40) such that said pushing part is easily removable by vertical movement.

13.- A container and generally elongated item feed-dispensing machine
according to claims 11 and 12, characterized in that the pushing means (35) incorporate respective notches or recesses (43) on the bottom portion of their front and back sides for coupling of the individual supports (42).

30 14.- A container and generally elongated item feed-dispensing machine
according to claims 11, 12 and 13, characterized in that the pushing means (35) have a wedge projection (46) on their bottom portion causing the separation between one another when they are accumulated on the general conveyor (44), regulating their entrance into the spaces defined by the notches (43) of the pushing means (35).